

Revamping Core Math Instruction @ WHS

11/1/2017





The Move to Geometry For All Freshmen





Why?

- To provide a common experience for incoming freshmen, more consistent with the Community Model in use in other subject areas.
- To get a better idea of students' Algebra skills before 10th grade placement in Alg 1-2, Alg 3-4, Bridges, and Support
- To unify our approach to teaching Geometry across the Department and to share expertise
- To allow students who struggle with math to go straight from Algebra 1-2 to Algebra 3-4



How?

- Two sets of three Geometry teachers share a Common Prep
- We moved to Proficiency Grading across Geometry classes
- We spent a lot of time and effort developing [packets](#) for each of our units

- Self Reflection

- Definition/Conjectures Graphic Organizer

- Practice Problems with Solutions






- Challenge Problems



Proficiency Grading

- Grading is based on Assessments and is broken out by Learning Target
- Students may retake Assessments for specific learning targets
- Time is provided in class for retakes
- Final Grade is currently calculated according to the following matrix:

PPS Proficiency Based Grading Matrix 2017-18

FINAL MARK	STANDARDS SCORE PATTERNS	NOTES/RATIONALE
A	A mix of HP and PR marks with 50% or more of the marks being HP No CP or DP marks	Student consistently exceeds the minimum level of proficiency on determined standards. 
B	A mix of HP and PR marks with 25% or more of the marks being HP No CP or DP marks	Student often exceeds the minimum level of proficiency on determined standards. 
C	A mix of HP, PR, and CP marks with 20% or less of the marks being CP. No DP marks	Student meets minimum proficiency in all determined standards in order to earn a C in the course, which would indicate their readiness to move to the next level. 
D	A mix of HP, PR, CP, and DP marks with 33% or less of the marks being DP.	Student does not meet the minimum proficiency on all determined standards and may struggle when moving on to the next level. 
F	A mix of HP, PR, CP, and DP marks with 33% or more of the marks being DP.	Student has not yet gained a minimum level of proficiency on determined standards and can not move on to the next level. 

4 or HP = Highly Proficient
 3 or PR = Proficient
 2 or CP = Close to Proficient
 1 or DP = Developing Proficiency



Where to Next?





Revamping Algebra 1-2

In the Spring, we plan to form a team to work on improving our teaching of Algebra 1-2. This work will include:

- A move to Proficiency Grading
- Working to make the content more engaging and applicable
- Better use of supports and technology, including use of the work Nick Nohner has done with Demonstration Videos and Kahoots
- Common planning and development of common assessments



Thoughts and Concerns Going Forward

While students like being able to understand which learning targets they need to study and retest on, the calculation of the overall grade with proficiency grading is causing some students and parents to worry. There is discussion in our Department about whether Math should be using the same grade calculation matrix as other classes.

There is a lot of hesitancy about eventually moving the Advanced Algebra classes to Proficiency Grading, as allotting class time to retakes does not appear as feasible in a class that should cover so much material.

MATH!

